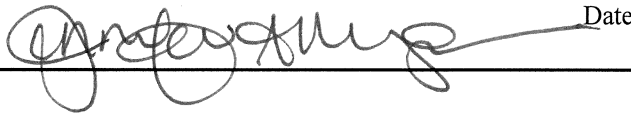


Memorandum

TO: HONORABLE MAYOR AND **FROM:** John Aitken
CITY COUNCIL

SUBJECT: 2018 ANNUAL NOISE **DATE:** July 22, 2019
REPORT

Approved

 Date

July 22, 2019

INFORMATION

Attached for distribution is the Norman Y. Mineta San Jose International Airport 2018 Annual Noise Report outlining air carrier activities related to the noise-based curfew in place at the Airport between January 1, 2018 and December 31, 2018.

In addition to the information provided in the attached report, the Airport publishes Quarterly Noise reports including noise exposure maps and Monthly Noise Summary data on the Airport's website for further explanation of air carrier activities and noise impacts to the community.

/s/

JOHN AITKEN, A.A.E.
Director of Aviation

Attachments:

2018 Annual Noise Report

Norman Y. Mineta
San José International Airport
2018 Annual Noise Report



Annual Noise Report for Norman Y. Mineta

San José International Airport

Introduction and Purpose

The purpose of this annual report is to communicate the efforts undertaken by the City of San José (“the City”) and Norman Y. Mineta San José International Airport (“SJC” or “Airport”) to minimize the airport’s noise impact on the surrounding communities. This report contains an explanation of the curfew and violation process, as well as a summary of records for the calendar year detailing the number and type of curfew violations.

Operational Restrictions and the Curfew

Chapter 25 of the San José Municipal Code (“SJMC”) details the city ordinances regarding Airport-related noise as well as the Airport curfew. The SJMC defines the curfew as, “...a time use restriction that limits the hours in which the city will allow certain aircraft operations to be conducted and that prohibits the scheduling and operation of certain aircraft operations at the airport during curfew hours.”

The weight-based curfew for the Airport was original formulated in 1984 with subsequent revisions to a noise-based curfew in 2003. The revisions also allowed for monetary fines for curfew violations and included newer business jet type aircraft.

The noise-based curfew restricts flight activity into and out of the Airport between the local hours of 11:30 PM and 06:30 AM for aircraft operations by jet aircraft with Federal Aviation Administration (“FAA”) certified and published Effective Perceived Noise level in decibels (“EPNdb”) above 89.0. Aircraft types grandfathered in to be exempt from this noise level as well as those that are compliant with the curfew are listed for easy reference on the Schedule of Authorized Aircraft. This document is regularly maintained and posted to the “Curfew” page on the Airport’s website.

Responsibility for monitoring and managing the airport noise and curfew programs at SJC belongs to the City’s Airport Operations Division.

Types of Curfew Violations

Any aircraft operation in an aircraft type whose EPNdb is above 89.0, not on the Schedule of Authorized Aircraft, that depart from or arrive to the Airport between the local hours of 11:30 PM and 06:30 AM is defined as a non-compliant operation. A non-compliant operation is then further defined as being either an intrusion or a violation. An intrusion is defined as a non-compliant operation that was documented to occur during curfew hours due to circumstances outside of the aircraft operators’ control (e.g. Air Traffic Control delays, Weather delays, etc.) which are referred to in the SJMC as “Force Majeure” events. A violation is defined as a non-compliant operation that did not have acceptable documentation justifying the operation to occur during curfew hours.

For a non-compliant operation to be categorized as an intrusion rather than a violation, the operator must communicate the extenuating circumstances to the Airport. If those circumstances are accepted by the Airport, the operation will be categorized as an intrusion and no fine will be levied. Fines for violations are \$2,500 per occurrence.

Actions Taken by Airport Operations Department

Throughout the year, Airport Operations staff publishes the Monthly Noise Summary Charts on the Airport's website which details the total number of curfew compliant and non-compliant operations as well as the number of noise complaints submitted. Additionally, Airport Operations staff uses data from the FAA along with data from an airport noise monitoring system to compile a Quarterly Noise Report for concerned residents, as well as other City, County, and State officials. These documents are regularly maintained and posted to the "Noise Reports" page on the Airport's website.

The noise monitoring system mentioned above was originally installed in November of 1992, with updated hardware and software installed more recently. The system records and measures aircraft noise levels at strategic locations in noise-sensitive locations under the aircraft arrival and departure paths. The noise system also compiles flight track and flight identification information, noise complaints and complainants' addresses, and noise events. The quarterly noise monitoring and reporting is conducted in compliance with State regulations.

Airport Operations staff continually investigates and responds to noise complaints, tracks flight activity, reviews curfew operations for compliance with the SJMC and assesses fines as necessary. Airport Operations staff also participate in Airport Commission meetings to communicate the findings contained in the Monthly Noise Summary Charts and to respond to questions from residents of neighboring communities.

Airport staff also review airline provided justification for curfew violations, and work with aircraft operators to minimize the number of non-compliant operations during curfew hours thereby reducing the disturbance to the public. The Airport Operations staff strives to take a proactive approach to managing the noise associated with SJC and the need to be polite neighbors to the surrounding residential communities.

2018 Operations During Curfew

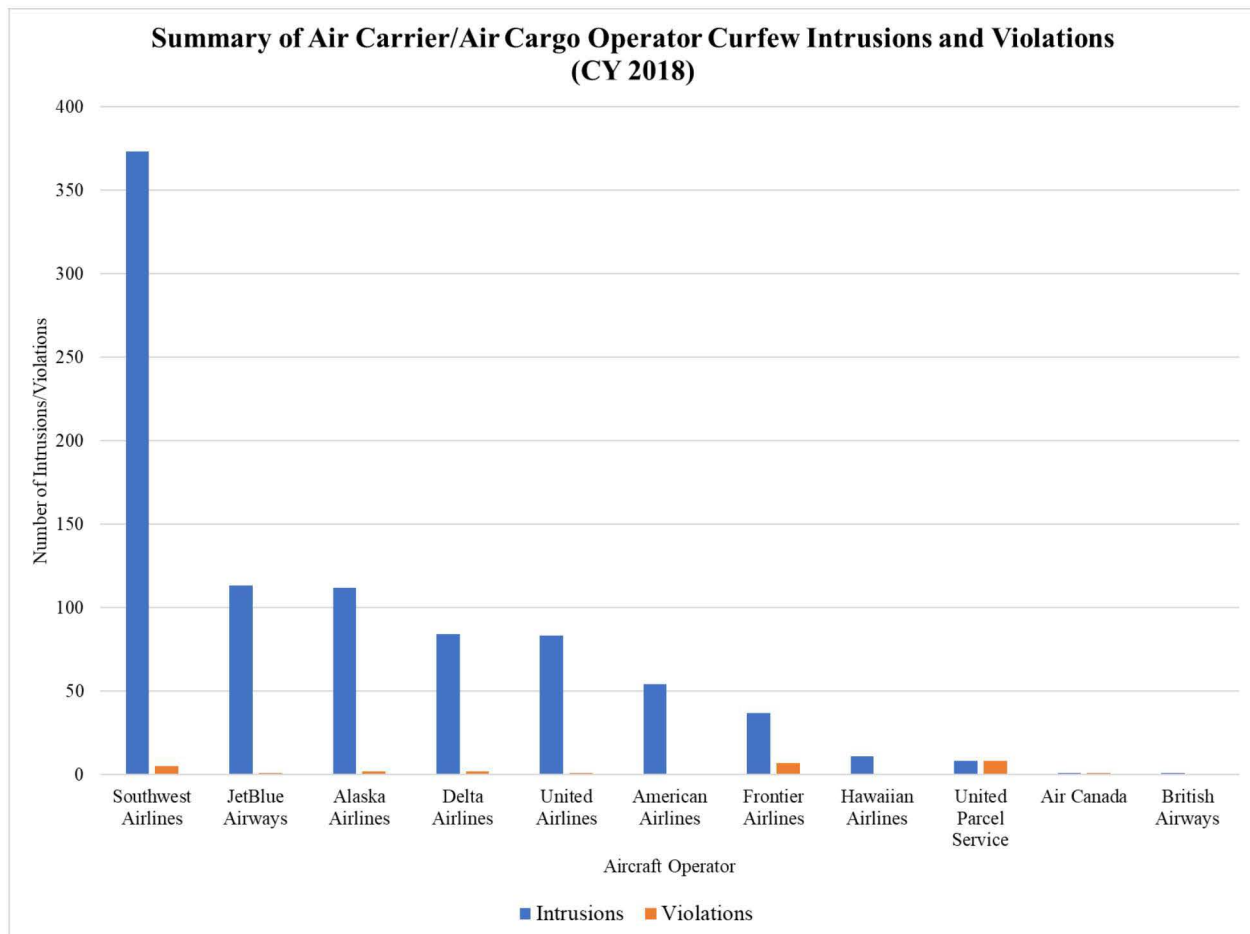
In calendar year 2018, there were 3,383 operations during the curfew hours out of the 183,892 total operations for the Airport (approximately 1.84%). For comparison, calendar year 2017 had 3,400 curfew operations out of the total 171,883 operations for the airport (approximately 1.98%).

Of the 3,383 curfew operations, 882 were found to be intrusions which represent approximately 0.48% of all operations at SJC. Of those 882 intrusions, 40 were found to be violations and were cited; these violations represent approximately 0.0218% of all operations at SJC which results in a curfew compliance rate of over 99.97%

In 2018, the airport hosted 16 Commercial Air Carrier tenants and 2 Air Cargo tenants. Of those 18 operators Aeromexico, Air China, All Nippon Airways, Federal Express, Hainan Airlines, Lufthansa, and Volaris each committed zero curfew intrusions.

In 2018 Southwest Airlines, Jetblue Airways, Alaska Airlines, and Delta Airlines were responsible for the majority (77.77%) of curfew intrusions.

The chart and table on the following page depict the commercial and air cargo carriers' annual intrusions and related violations for calendar year 2018.



Bar Chart of CY 2018 Air Carrier/Air Cargo Intrusions

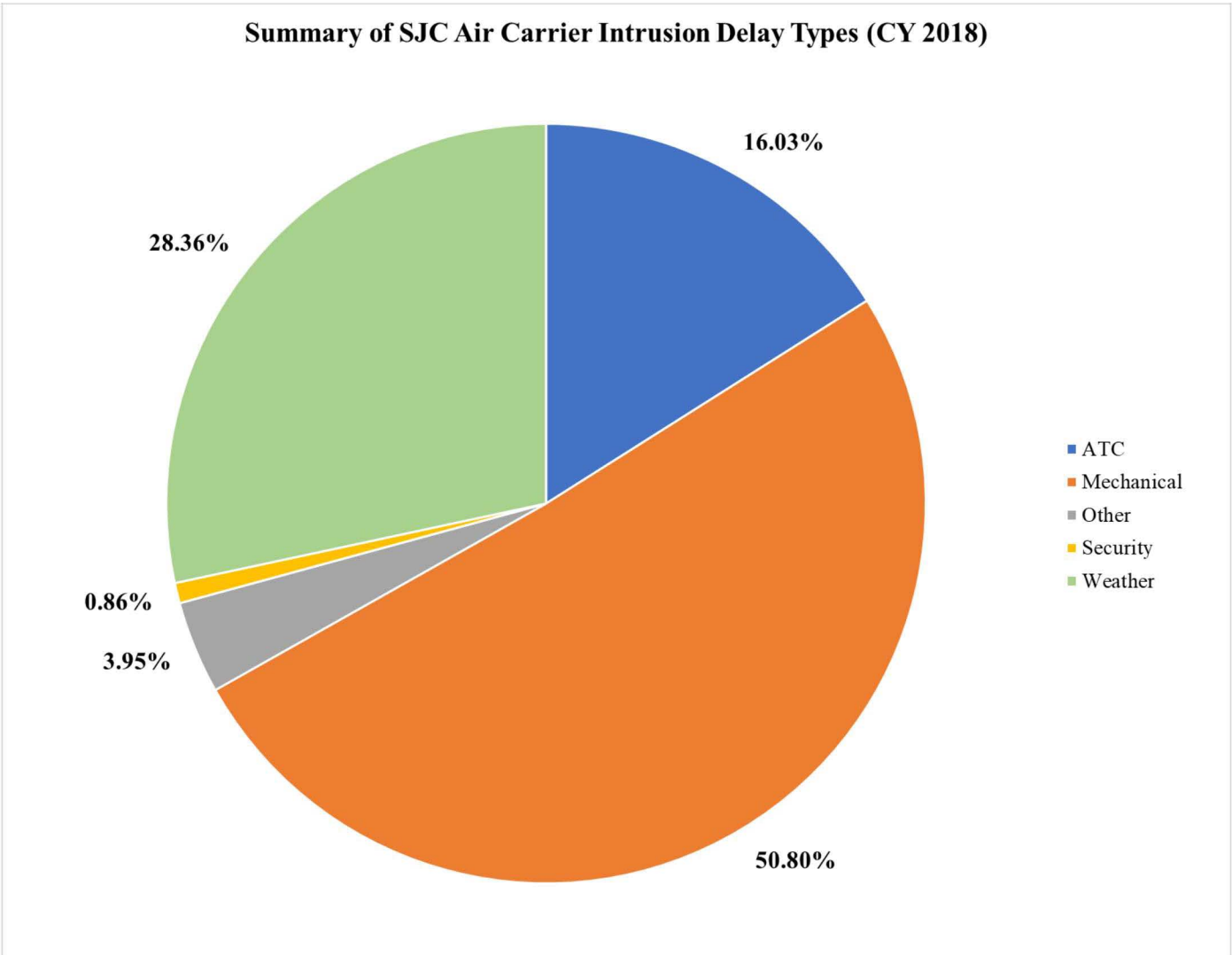
SJC Air Carrier Curfew Data 2018		
Operator	Intrusions	Violations
Southwest Airlines	373	5
JetBlue Airways	113	1
Alaska Airlines	112	2
Delta Airlines	84	2
United Airlines	83	1
American Airlines	54	0
Frontier Airlines	37	7
Hawaiian Airlines	11	0
United Parcel Service	8	8
Air Canada	1	1
British Airways	1	0

Table of CY 2018 Air Carrier/Air Cargo Intrusions

For **JetBlue Airways**, a significant reduction in curfew intrusions and violations was noticed. Compared to 2017, the airline committed about two-thirds less intrusions, and reduced their violations by 92.5%. Adjusting flight times to better avoid operating during the curfew is the main contributing factor in this reduction. Of the non-violating intrusions, most stem from poor weather conditions on the East Coast.

For **United Parcel Service (UPS)**, the carrier informed Airport Operations staff that due to a forecasted increase in holiday-related packages through the Bay Area, as in 2016 and 2017, that they would be adding additional arrivals during the curfew hours between 4:00 AM and 5:00 AM. Airport Operations staff reminded UPS of the airport’s curfew and commitment to minimizing its noise impact on the surrounding communities. This year, UPS again chose to hold departures until the curfew timing expired but did have eight violating arrival flights that they were cited for.

For the SJC-based air carriers in general, many of the delays come from mechanical issues that are experienced on the specific aircraft carrying the flight throughout the day on its flight network. There are also about as many delays due to ATC and Weather combined. Occasionally there are also delays for more specific incidents such as required security sweeps or when a crew member calls in sick. The following chart illustrates the breakdown of the proportion of flights affected by weather, mechanical, air traffic control, security, or other delays.



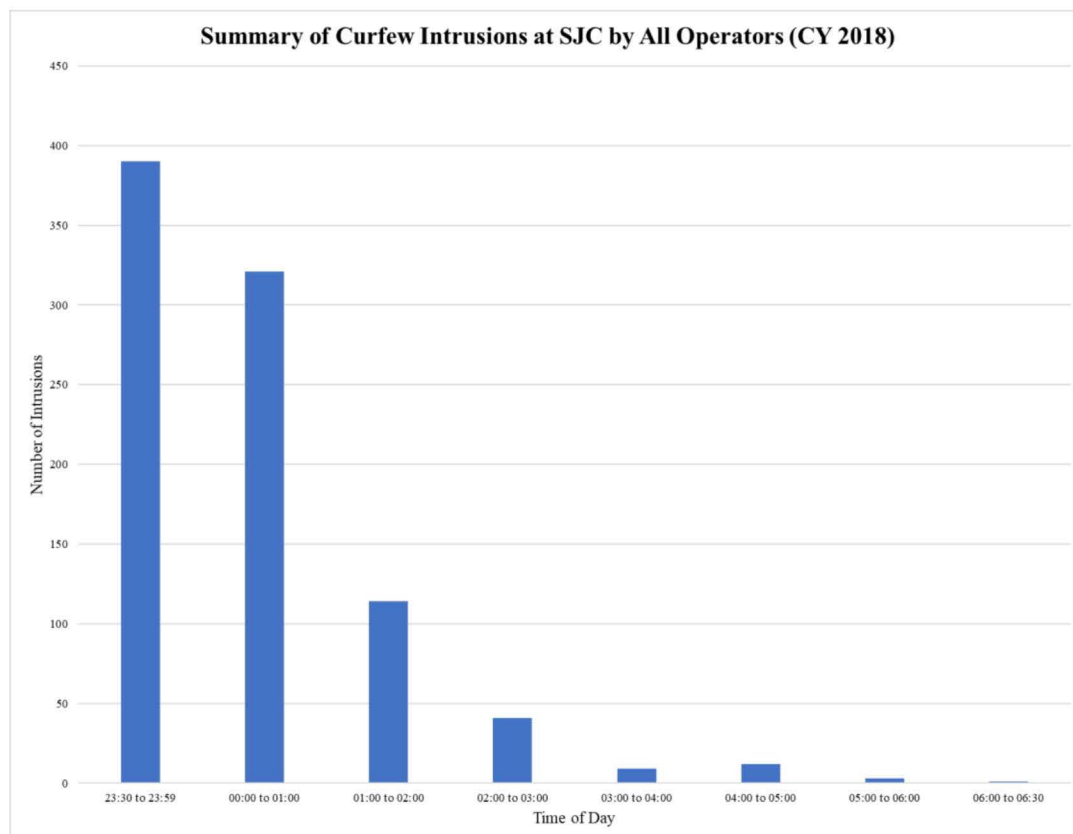
Pie Chart of CY 2018 Air Carrier Intrusion Delay Types

The table on the next page shows the various charter operators who committed curfew intrusions. All of the non-compliant curfew operations were cited by the Airport.

Operator	Intrusions	Violations
Swift Air LLC	6	6
NHL Charters		
Miami Air	1	1
NHL Charters		
Atlas Air	1	1
NFL Charters		
IFL Group	1	1
Cargo Charter		
Las Vegas Sands Corp	1	1
Private Charter		
March Management Group, LLC	1	1
Private Operator		
Paradigm Air	1	1
NHL Charter		
Sun Country Airlines	1	1
University Charter		

Table of Charter Operators and Curfew Intrusions/Violations

The majority of curfew intrusions occur during the first 90 minutes of its onset with a dramatic fall after the midnight to 12:59 AM time period. This shows that the aircraft operators are attempting to serve their passengers while also creating as minimal of a noise impact as possible.



Engine Runs

In addition to takeoff and landing restrictions at the Airport, the Airport Operations staff also limit maintenance and engine run-ups during the curfew hours to help limit the noise generated during curfew hours. If an aircraft operator must perform engine maintenance run-ups to prepare for a 06:30 AM flight, Airport Operations will direct the aircraft to the north end of the airfield to avoid generating noise towards the surrounding residential uses at the Southeast end of the airfield. Those engine maintenance run-ups can be performed as early as 2 hours before the scheduled departure, as published in the SJMC.

Airport Operations staff record the number of engine maintenance checks performed during curfew hours which require a full engine run-up. In 2018, thirteen full engine maintenance run-ups were performed during curfew hours.

Airport Noise Complaints

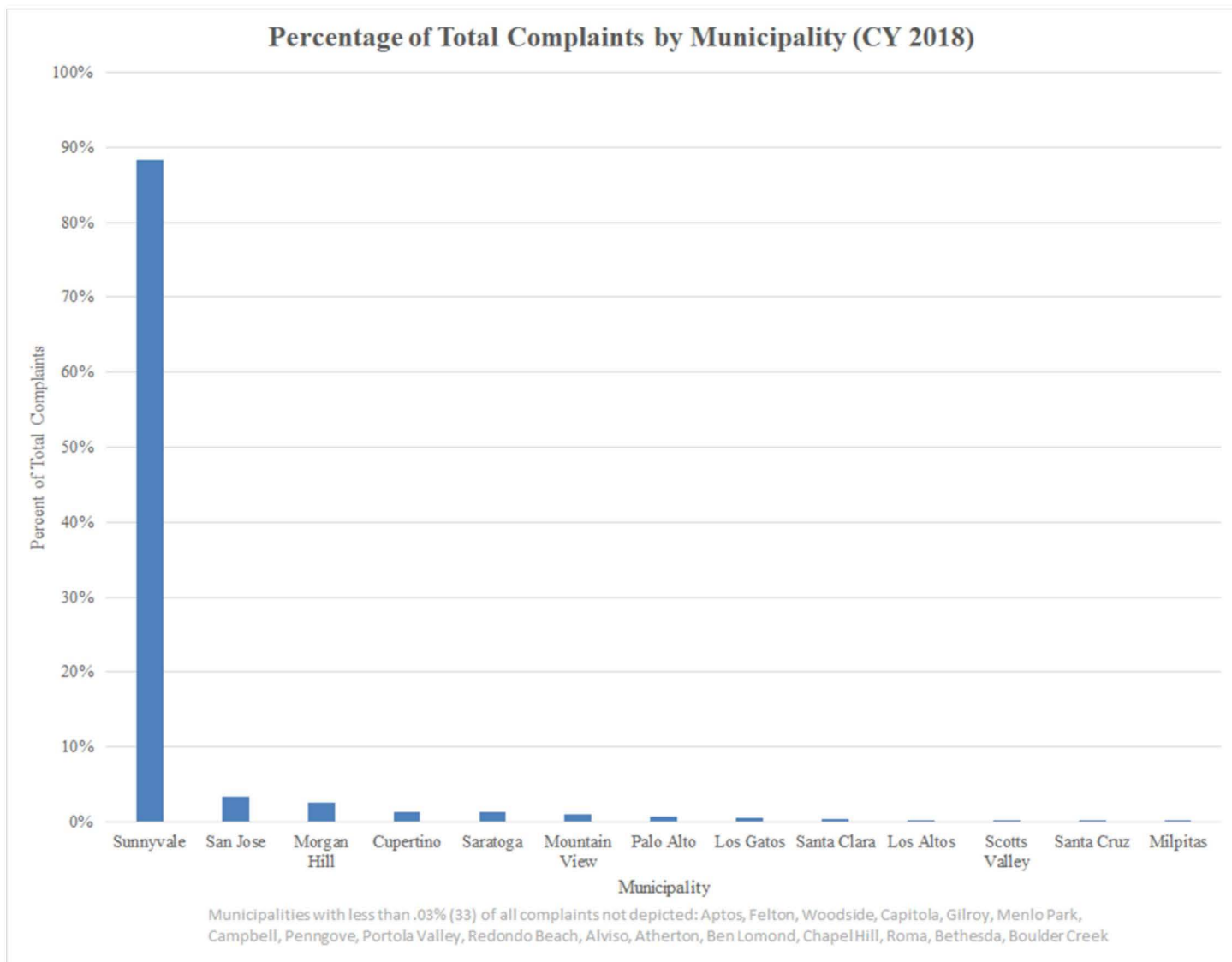
Like many other airports in noise sensitive communities, the Airport collects noise complaints from residents of the City of San José as well as the surrounding municipalities through the “WebTrak” system. This system allows concerned residents to monitor a slightly delayed live feed of aircraft operations in the South Bay Area. Community members regularly use this tool to investigate deeper into their noise disturbances and to report their noise disturbances to the Airport’s Noise Management Office. Some complaints also arrive through direct e-mail.

Airport staff responds to curfew-related complaints whenever possible by including the reason the flight in question operated during curfew hours, an explanation of the approach or departure procedures to the Airport, and acknowledgement of whether or not a late-night operation was a curfew violation. Additionally, response from Airport staff may include whether a flight was operating at another airport in the area, or its status as an emergency response aircraft.

There were a total of 114,003 complaints submitted by 744 individual residents throughout the area. This group of complaint reporters represents approximately 0.00072% of the total San José population (1.04 Million). Of those complaints, just over 50% (58,323) were submitted by a group of 12 individuals which means that nearly half of the Airport’s complaints were received from approximately 1.61% of the total complaint reporters. These complaint numbers represent a 23.47% decrease from 2017 (148,969 complaints).

The population of complaint reporters is shrinking (compared to 1,044 submitters in 2017), and the number of complaints are decreasing by roughly the same proportion. Still, the select group of individuals identified above submits hundreds, if not thousands, more complaints than an average person typically would; the top reporter submitted nearly 7,000 complaints in 2018. The Airport is aware of an automated reporting system that some residents use to automatically submit a complaint for any flight in South Flow Operations which makes up the bulk of the complaints received. Some of the other complaints concern other SJC traffic, but sometimes also reference other airports in the area such as San Francisco, San Carlos, and Moffett Federal Airfield.

The chart on the following page shows a breakdown by city of noise complaints:



Bar Chart of 2018 Complaints by Municipality

Sunnyvale residents continue to submit a significant amount more noise complaints than their neighboring cities. In 2018 there were 100,046 complaints submitted by Sunnyvale residents which represents a 17.22% reduction over 2017 in which they submitted 120,854 complaints. It is worth noting that the number of total operations is increasing though the total complaint numbers are decreasing. General fluctuations in complaint numbers also correlate with when the Airport is utilizing South Flow Operations.

The number of complaints submitted by San José residents increased slightly to 3,778 for an increase of 12.84%. There are no flight path changes associated with this increase so the increased public participation may come from new awareness of the noise reporting program through community groups, social networking sites, or increased media attention of the implementation of NextGen procedures in the Bay Area.

South Flow Operations

Occasionally, due to weather or regional traffic flow requirements, SJC arrivals will land from the north on Runways 12R or 12L instead of approaching the airfield from the south and landing on Runways 30L or 30R. In 2018, the Airport utilized South Flow Operations approximately 10.62% of the year compared to 2017 wherein the traffic operated in South Flow 13.00% of the year.

When the airport does operate in South Flow conditions, the communities in Sunnyvale, Santa Clara, Cupertino, Mountain View, and Palo Alto become more impacted by the SJC arrivals than they are under normal operating conditions.

In May 2018, the Director of Aviation sent formal communications to passenger airline and cargo operators based at San Jose to remind staff both locally and at their headquarters of the efforts to operate aircraft, regardless of their noise impacts to the community, outside of curfew hours.

Later that month, the Ad Hoc Advisory Committee on South Flow Arrivals concluded. The Committee was established to explore possible solutions to address the noise impacts on residents when weather conditions over the airfield require the Airport to operate in a South Flow configuration. It was formed of community members who each represented their municipality of residence.

Throughout the Ad Hoc Committee, the Airport stayed true to committing to provide any services it can offer to the community members including but not limited to compiling aircraft operations data sets and producing maps of flight tracks. The FAA was also present at these meetings and responded to questions and concerns regarding noise.

In February 2019, the FAA sent the Airport their Interim Response to the Ad Hoc Committee's final report. In this report there is an implied commitment that a full response is still being compiled and will be delivered to fully address the Ad Hoc Committee's final report.